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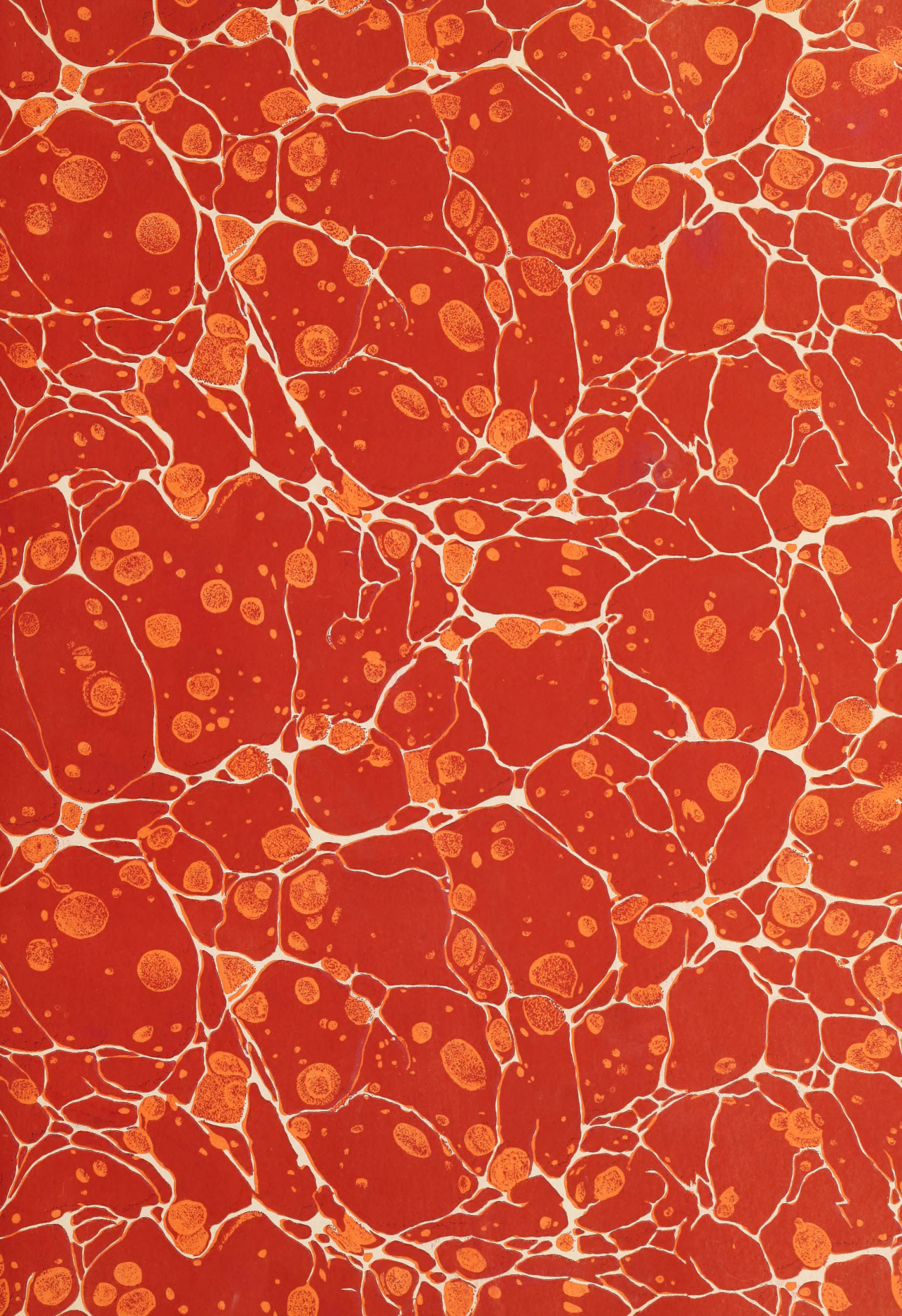


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All communications should be addressed to
"The Commissioner of Agriculture, Washington, D. C."

U. S. Department of Agriculture,

At the last session of Congress additional appropriations were made for continuing the work of this Department for the establishment of silk culture in the United States. Under the provisions of this act I shall continue the experiments in silk reeling in this city and shall purchase the cocoons necessary therefor on the following terms:—

From the States bordering on the Gulf of Mexico lots will be purchased at any time after the first of July 1887. From all other portions of the country they should not be shipped before October 1st. This distinction is made on account of the difference in the seasons in the several parts of the country and the fact that cocoons produced in the north would hardly be dry before October, while those of the extreme south, being raised much earlier, are sooner ready for the market.

The highest price that will be paid will not exceed \$1.15 per pound, and this will be given only for cocoons of first quality. For those that are inferior such prices will be paid as their quality will justify, and it must be remembered that very poor cocoons cannot be reeled and are only salable as waste and as such bring excessively low prices. In the present state of the industry in this country but few raisers produce cocoons of such quality as will command the maximum price quoted.

Persons having cocoons to sell should notify this office before shipment so that they may be informed whether or not the full quantity required has been purchased. This may be done upon the enclosed official postal card. No cocoons will be purchased except by previous agreement, and lots shipped without regard to these instructions will not be returned to the shipper at the expense of this Department. With the notification should be sent a sample of cocoons, which may be mailed without payment of postage if the enclosed franking label be used. This sample should be sent in a tin or wooden box and should consist of at least twenty cocoons. Upon its receipt the shipper will be informed, approximately, of the price which will be paid for the cocoons. But as it is extremely difficult to judge of the value of the whole lot by the inspection of a small sample, I cannot undertake to bind myself by the estimates thus given. The experience of the past year, however, has shown that, while many lots were not equal in value to the sample sent me, others were of superior quality, and in such cases the prices paid for the lots were better than those quoted on the samples. Such a policy will always be followed. Lots of cocoons weighing not more than four pounds may be sent by mail with one of the enclosed slips attached.

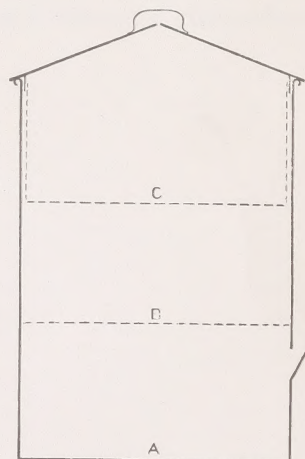
In shipping samples or lots of cocoons it is very important that the name and the address of the shipper should be placed inside of each parcel or box. All freight and express charges must be prepaid by the shipper.

In order to save transportation expenses it is suggested that neighbors combine their small lots in one case and ship them by freight. The lots should however be separately packed in the case and each labeled with the name and address of its owner. It is also suggested that all lots that are large enough be shipped by freight instead of express, as there is no danger of the cocoons spoiling and a great saving of expense will result.

No special instructions are needed as to the packing of cocoons for shipment beyond calling attention to the fact that crushing must be guarded against. Much breakage has occurred in pasteboard packages sent by mail and shippers are advised to avoid this mode of packing. No soft or foul cocoons should be placed in the case.

The following extract from the forthcoming report of the Entomologist will prove of immediate importance to such silk raisers as have not yet stifled their cocoons.

"Our experience in the filature, has shown us that our people are sadly deficient in their knowledge of the art of stifling cocoons, and many lots have been received which were of otherwise excellent quality, but which had been burned by the employment of improper means for destroying the life of the chrysalis. It is the custom in Europe for the silk-raiser to dispose of his cocoons at the filature as soon as they are raised and before they have been stifled. The raiser then has the advantage of getting payment for his work as soon as it is completed, and the silk-reeler is enabled to stifle his cocoons in large quantities and by the most approved process. This scheme, however, has thus far been found impossible in the United States, as silk-raisers are as a rule located so far from the available markets, that there would be danger of the moths piercing the cocoons before they could be choked. American buyers have therefore been obliged to purchase only stifled cocoons which have been thoroughly dried, and as this process of drying requires several months, silk-raisers have not received the proceeds of their season's labor until well into the autumn. And again, through inability to purchase apparatus or through lack of knowledge on the subject, they have resorted to such means of stifling as were at their command, and have destroyed in many cases an otherwise excellent crop. This burning of the cocoons may always be obviated by using steam in their stifling and afterwards thoroughly drying them to prevent moulding. A very efficient though simple piece of apparatus for thus stifling cocoons was purchased last spring by this Department of the New York Silk Exchange, and is within the means of most silk-growers. A sketch of it, in a slightly modified form, is shown in the figure. It consists of a tin reservoir, about one third filled with water. Slightly above the surface of the water is a movable perforated partition, B, intended to prevent splattering during ebullition. The upper portion contains a perforated pan for holding the cocoons, while all is tightly closed by a cover. Cocoons may be thoroughly stifled by exposure in this apparatus over boiling water for twenty minutes. It will be seen, too, that much the same apparatus may be contrived by the use of a deep kettle, into which is set an ordinary colander full of cocoons. It is well to avoid, however, so filling the kettle with water that it will splash upon the cocoons in boiling, as they should only be subjected to the action of steam. The apparatus owned by the Department is 12 inches in diameter and 13 inches deep and will stifle from 3 to 4 pounds of cocoons at a time"



Silk growers will find complete instructions in the art of raising silk-worms in Prof. Riley's pamphlet "The Mulberry Silk-Worm" which is gratuitously distributed by this Department.

Encouragement given in the past has, unfortunately, led to the production in large quantities of eggs of inferior quality, for which raisers have found practically no market and they have therefore failed to earn even that sum of money which they might have realized had they stifled their cocoons and sold them for reeling. The policy therefore, adopted last year not to purchase American silk-worm eggs and to discourage the extensive production of such eggs will be adhered to for I deem it unwise that raisers should be assisted in this direction. In this connection the Entomologist says:—

"In 1885, as stated in our last report, a quantity of silk-worm eggs were purchased of American silk-raisers and 150 ounces were distributed to applicants in different parts of the country. The general result was so unsatisfactory as to prevent the repetition of the experiment. There were but few of the sellers who had the slightest idea of the care to be taken in egg production, and it has not been thought wise to continue the encouragement of this kind of work. There is, too, undoubtedly, evidence of the existence in the country of much "seed" of inferior races, and it is our aim to prevent the use of this as much as possible by the gratuitous distribution of choice qualities."

With this object in view I shall purchase foreign eggs from reliable houses and distribute them (between January 1, and June 1, 1888) in limited quantities to silk raisers. Applications may be made directly to me. While thus discouraging any attempts to raise silk-worm eggs with a view to sale I am ready to afford any aid in my power to raisers who desire to produce eggs for their own use. Extreme care in such production cannot be too strongly insisted upon as two silk-worm diseases are hereditary and may pass from one generation to another through the eggs. Before attempting egg-production therefore raisers are recommended to give

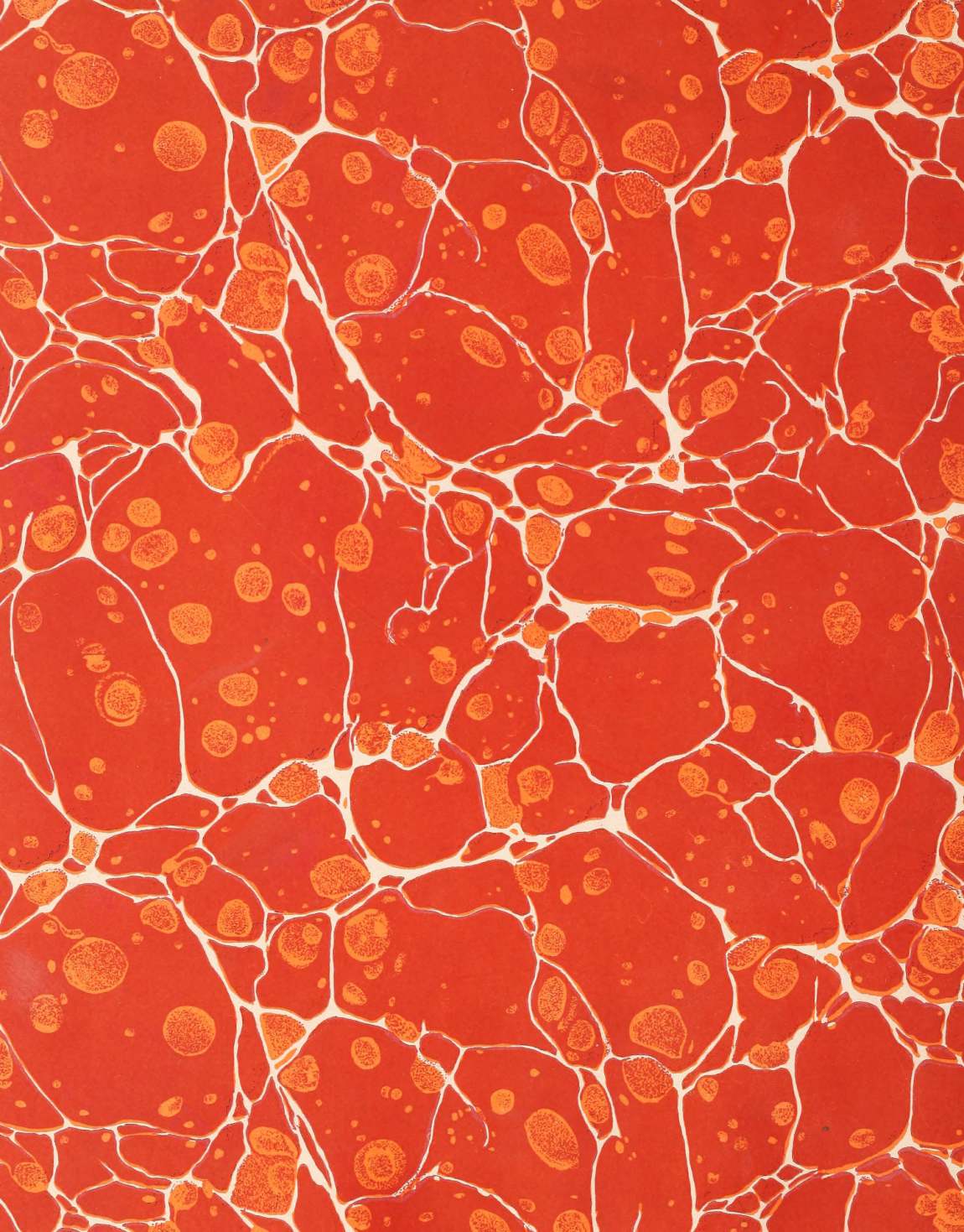
careful attention to the contents of Chapters V and VI of the pamphlet mentioned above. All the precautions therein set forth may easily be taken by any person of ordinary intelligence. In case the lack of a microscope should deter any person from submitting the moths to a proper examination for pebrine, such examination will be made at this Department without expense to silk-raisers so far as the eggs produced may be intended for their own use and not for sale. Instructions in regard to such examinations will be furnished upon application. It is suggested also that the worms destined for reproduction should be raised apart from the others and that they be chosen from those born the first day. They should, too, be fed more plentifully than the others with a view to bringing them sooner to maturity. Each time the litter is removed the backward worms should be discarded. If it is too late on receipt of this circular, to effect this choice after birth, make it from the worms which first emerge from the next molt.

Special arrangements for the safe keeping of eggs during the winter have been made here and persons who so desire may send their eggs to this Department for hibernation. Such eggs should be sent in bulk, in proper boxes, after they have been washed from the cloths on which they were laid.

NORMAN J. COLMAN,

Commissioner of Agriculture.

WASHINGTON, D. C., MAY 9, 1887.



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Lib. 9